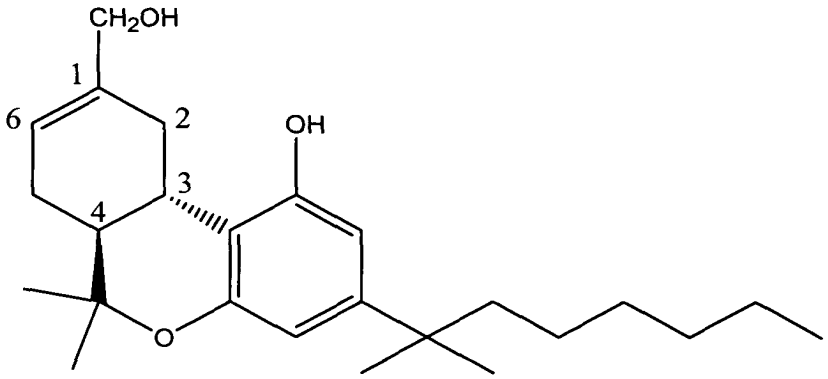
THE CLAIMS

What is claimed is:

1. A compound of formula (I):

Formula I



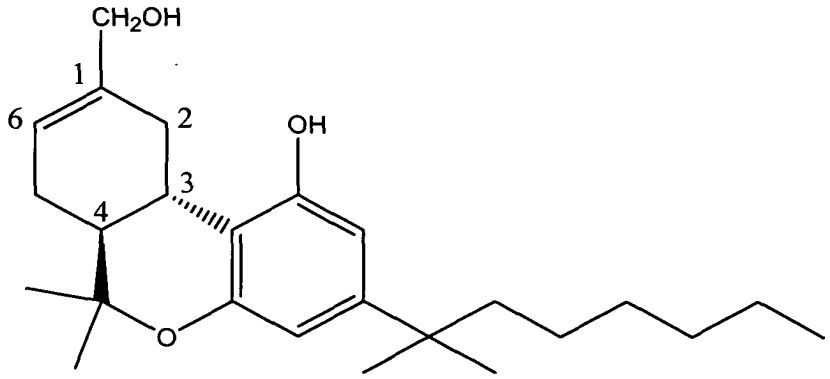

having the (3*S*,4*S*) configuration and being in enantiomeric excess of at least 99.90% over the (3*R*,4*R*) enantiomer, or a pharmaceutically acceptable salt, ester or solvate of said compound.

2. The compound of claim 1 or a pharmaceutically acceptable salt, ester or solvate of said compound, having the (3*S*,4*S*) configuration and being in enantiomeric excess of at least 99.92% over the (3*R*,4*R*) enantiomer.

3. The compound of claim 2 or a pharmaceutically acceptable salt, ester or solvate of said compound, having the (3*S*,4*S*) configuration and being in enantiomeric excess of at least 99.95% over the (3*R*,4*R*) enantiomer.

4. A pharmaceutical composition comprising as an active ingredient dexanabinol, a compound of formula (I):

Formula I




having the (3*S*,4*S*) configuration and being in enantiomeric excess of at least 99.90% over the (3*R*,4*R*) enantiomer, or a pharmaceutically acceptable salt, ester or solvate of said compound.

5. The pharmaceutical composition according to claim 4 wherein the active ingredient dexanabinol, or a pharmaceutically acceptable salt, ester or solvate of said compound, has the (3*S*,4*S*) configuration and is in enantiomeric excess of at least 99.92% over the (3*R*,4*R*) enantiomer.

6. The pharmaceutical composition according to claim 5 wherein the active ingredient dexanabinol, or a pharmaceutically acceptable salt, ester or solvate of said compound, has the (3*S*,4*S*) configuration and is in enantiomeric excess of at least 99.95% over the (3*R*,4*R*) enantiomer.

7. The pharmaceutical composition according to claim 4 further comprising a pharmaceutically acceptable diluent or carrier.

8. The pharmaceutical composition according to claim 7 wherein the diluent comprises an aqueous cosolvent solution comprising a pharmaceutically acceptable cosolvent, a micellar solution or emulsion prepared with natural or synthetic ionic or non-ionic surfactants, or a combination of such cosolvent and micellar or emulsion solutions.

9. The pharmaceutical composition according to claim 7 wherein the carrier comprises a solution of ethanol, a surfactant and water.

10. The pharmaceutical composition according to claim 7 wherein the carrier is an emulsion comprising triglycerides, lecithin, glycerol, an emulsifier, and water.

11. The pharmaceutical composition according to claim 7 comprising a cosolvent solution comprising polyoxyl 35 castor oil and ethanol.

12. The pharmaceutical composition according to claim 11 wherein the polyoxyl 35 castor oil is present in an amount of 30-80% w/w and the ethanol is present in an amount of 20-70% w/w.

13. The pharmaceutical composition according to claim 12 wherein the polyoxyl 35 castor oil is present in an amount of 45-80% w/w and the ethanol is present in an amount of 20-55% w/w.

14. The pharmaceutical composition according to claim 13 wherein the polyoxyl 35 castor oil is present in an amount of 60-80% w/w and the ethanol is present in an amount of 20-40% w/w.

15. The pharmaceutical composition according to claim 11 further comprising a preservative, an antioxidant or a combination thereof.

16. The pharmaceutical composition according to claim 15 wherein the antioxidant is DL-α-tocopherol optionally supplemented with edetic acid.

17. The pharmaceutical composition according to claim 16 comprising 0.1-5% w/w DL-α-tocopherol and 0.001-0.1% w/w edetic acid.

18. The pharmaceutical composition according to claim 4 in unit dosage form.

19. The pharmaceutical composition according to claim 18 suitable for oral administration.

20. The pharmaceutical composition according to claim 18 suitable for parenteral administration.

21. A method for preventing, alleviating or treating neurological disorders, chronic degenerative diseases, CNS poisoning, cognitive impairment, inflammatory diseases or disorders, autoimmune diseases or disorders, pain, emesis, glaucoma and wasting syndromes, by administering to an individual in need thereof a prophylactically or therapeutically effective amount of a pharmaceutical composition comprising as an active ingredient a compound according to claim 1.

22. The method of claim 21 wherein the compound has an enantiomeric excess of at least 99.92% over the (3*R*,4*R*) enantiomer.

23. The method of claim 21 wherein the compound has an enantiomeric excess of at least 99.95% over the (3*R*,4*R*) enantiomer.

24. The method of claim 23 wherein the compound is administered to an individual to treat a neurological disorder.